

REMARKS

Claims 20-46 are pending. By this Amendment, no claims are cancelled, no claims are amended and no new claims are added.

Response to Arguments

The Office Action indicated that the amendments to claim 32 in a previous Amendment, which amended claim 32 to recite “wherein the scanning unit comprises adjustable optics for shifting the focal point in one spatial direction, which is parallel to a direction in which the laser radiation is applied” are “based on intended use and therefore does not further limit the claim.” Applicant respectfully traverses the assertion. This limitation of claim 32 clearly identifies the direction in which the adjustable optics shifts the focal point with relation to the application of laser radiation. Accordingly, these limitations do not recite an intended use but recite a limitation in the way which the structure of adjustable optics functions. A functional limitation defines something by what it does, rather than by what it is (e.g., as evidenced by its specific structure or specific ingredients). “There is nothing inherently wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper. In re Swinehart, 439 F.2d 210, 169 USPQ 226 (CCPA 1971). A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used.” MPEP 2173.05(g). Accordingly, Applicants respectfully traverse the rejection and respectfully submit that this limitation is proper. Applicants respectfully request that the Examiner consider the limitations which are not disclosed or suggested by the cited prior art.

35 U.S.C. § 101

The Office Action rejected claims 32-46 under 35 U.S.C. § 101 indicating that the claimed invention is directed to non-statutory subject matter. In particular, the Office Action indicated “applicant positively recites parts of a human i.e. a transparent material (cornea)”. The Office Action further states “thus claims 32-46 include a human within their scope and are non-statutory. “ Applicant respectfully traverses the rejection. The claims of this application do not seek to establish a property right in the cornea or any other part of a human being. The claims merely recite that the apparatus identified in the preamble of claim 32 is for producing curved cuts in a transparent material. The device claimed is a device can be used to perform a surgical procedure upon the cornea or another transparent material and is statutory subject matter in the same way that any other surgical instrument intended for use on the human body or other material or tissue would be. Applicant respectfully requests that the Examiner withdraw the rejection.

Claim Rejections – 35 U.S.C. § 112

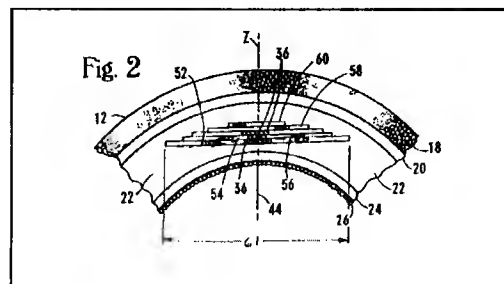
The Office Action rejected claims 32-46 under 35 U.S.C. § 112, second paragraph, as being indefinite. In particular, the Office Action indicated “it is unclear what, if any structure, is intended to be implied by the recitation “which is parallel to a direction in which the laser radiation is applied”, the Office Action indicated “for purpose of examination, the Examiner’s has interpreted the recitation as providing no further limiting structure.” Applicants respectfully traverse the rejection. The direction indicated, that which is parallel to the direction in which laser radiation is applied, limits the structure of the claimed device to one in which the adjustable optics is oriented to shift the focal point in the recited direction. Accordingly, claims 32-46 are

not indefinite and this limitation does properly further limit the scope of claim 32. Applicant respectfully requests that the Examiner withdraw the rejection.

Claim Rejections – 35 U.S.C. § 102

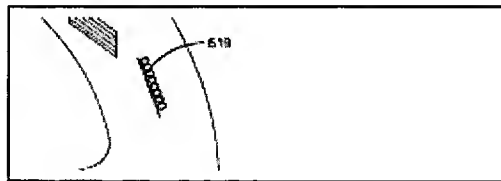
The Office Action rejected claims 20-22, 24 and 26 under 35 U.S.C. § 102(b) as being anticipated by Juhasz et al. (U.S. Patent 5,993,438). Applicant respectfully traverses the rejection.

Juhasz discloses generation of plasma bubbles by laser radiation wherein a multiplicity of plasma bubbles are used to fill a volume which is to be removed from the cornea. The plasma bubbles are located in planes which are perpendicular to the optical axis and each perpendicular plane is fully filled with plasma bubbles. Accordingly, Juhasz does not disclose or suggest “guiding the focal point such that it follows, with respect to the two other spatial directions, contour lines of the cut, the contour lines being located in planes that are substantially perpendicular to the first spatial direction” as recited in claim 20 “to generate a cut surface which surrounds a volume to be removed.” To the contrary, the Juhasz reference discloses fully filling a volume with plasma bubbles. See Fig. 2 of Juhasz reproduced below.



Accordingly, the planes which are filled by plasma bubbles, are not contour lines of a cut surface and there is no disclosure in Juhasz of following contour lines. Contour lines are closed geometric figures that maintain constant altitude relative to the proposed cut surface. Further, Juhasz does not disclose or suggest surrounding a volume to be removed as claimed. Accordingly, the interpretation of the Juhasz's reference presented in the Office Action is not correct and the Juhasz reference does not disclose or suggest all of the limitations of independent claim 20. Accordingly, claim 20 should be patentable for at least this reason. Claims 21-31 depend from claim 20 and should be patentable for at least the same reasons as claim 20. Applicants respectfully request that the Examiner withdraw the rejections.

The Office Action rejected claims 32-43 and 46 under 35 U.S.C. § 102(b) as being unpatentable over Swinger et al. (U.S. Patent 6,325,792). The Office Action indicates that the Examiner interprets spiral 619 in Figure 7 (depicted below) as being a contour line.



Spiral 619 does not meet the definition of a contour line. Spiral 619 is not located in a plane perpendicular to the optical axis relative to the path along which the focus is guided as is a contour line. Also, the Swinger reference does not disclose or suggest that the focal point is guided in two other spatial directions on contour lines of the cut, or that contour lines are located in planes that are substantially perpendicular to the first spatial direction. Accordingly Swinger does not disclose or suggest all of the limitations of claim 32 and claim 32 should be patentable

for at least this reason. Claims 33-46 depend from claim 32 and should be patentable for at least the same reasons as claim 32.

Claim Rejections – 35 U.S.C. § 103

The Office Action rejected claims 25, 30 and 31 under 35 U.S.C. § 103(a) as being unpatentable over Juhasz et al. As discussed above, Juhasz does not disclose or suggest all of the limitations of independent claim 20. As these claims are dependent from independent claim 20 they are allowable at least by virtue of their dependency on a patentable base claim. Applicant respectfully requests that the Examiner withdraw the rejection.

The Office Action rejected claims 44 and 45 under 35 U.S.C. § 103(a) as being unpatentable over Swinger et al. As discussed, Swinger et al. does not disclose or suggest all of the limitations of independent claim 32 from which claims 44 and 45 depend from. Accordingly, claims 44 and 45 are patentable at least by virtue of their dependency on a patentable base claim. Applicant respectfully requests that the Examiner withdraw the rejection.

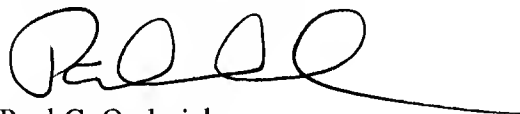
The Office Action rejected claims 23 and 29 under 35 U.S.C. § 103(a) as being unpatentable over Juhasz in view of Swinger. As indicated above, Juhasz does not disclose or suggest all of the limitations of independent claim 20. Swinger also does not disclose or suggest these limitations and does not make-up for the deficiencies of Juhasz. Therefore, claims 23 and 29 are patentable at least by virtue of their dependency on a patentable base claim. Applicant respectfully requests that the Examiner withdraw the rejection.

The Office Action rejected claims 27 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Juhasz in view of Bille (U.S. Patent 7,101,364 B2). As discussed above, the Juhasz reference does not disclose or suggest all of the limitations of independent claim 20. The Bille reference does not make-up for the deficiencies of Juhasz because it also does not disclose or suggest these limitations. Accordingly, claims 27 and 28 are patentable at least by virtue of their dependency on a patentable base claim. Applicant respectfully requests that the Examiner withdraw the rejection.

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'P. C. Onderick', with a long horizontal flourish extending to the right.

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